

**ELECTRIC CONNECTOR AND ELECTRIC CONNECTION STRUCTURE**

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Abstract of JP2000158376

**PROBLEM TO BE SOLVED:** To stably carry a large electric current while forming an electric connector as a compact and simple structure when carrying an electric current to mutual hand side and arm side earth cables for flowing a welding earth current by respectively arranging a current collecting ring on the hand side of a rotary joint of a robot and the electric connector for carrying an electric current by contacting with the current collecting ring on the arm side. **SOLUTION:** An electric connector and an electric connection structure have a hollow cylindrical socket 37 having a contactor 38 in an inner peripheral part and a plunger 39 slidably inserted into the socket 37, a tip contact part 40 capable of contacting with the contact surface 27 of a current collecting ring 26 is arranged on the tip of the plunger 39, and a compression spring 46 is arranged on the outer peripheral surface of the plunger 39 coming into contact with the contactor 38. The compression spring 46 is arranged on the outer peripheral surface of the plunger 39, and the plunger 39 is energized by a compression spring 46 so that the tip contact part 40 projects from the socket 37. There is no need to separately arrange a bar-shaped contact point contact part in the plunger by contact electric continuity of the contactor 38 at all time with the outer peripheral contact part 41.

